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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,802	02/17/2004	Stanislaw Kielbowicz	015258-062800US	1519

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EXAMINER

AWAI, ALEXANDRA F

ART UNIT PAPER NUMBER

3663

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/780,802	Applicant(s) KIELBOWICZ, STANISLAW	
	Examiner Alexandra Awai	Art Unit 3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2/27/2006 have been fully considered but they are not in every respect persuasive. Applicant's arguments filed 2/27/2006 have been considered but are moot in view of the new grounds of rejection. The objections with regard to the drawings have been withdrawn as the inconsistencies between Figs. 1 and 2 are not related to the claimed invention, which is the protective screen itself. The objections to the specification and the claims, as well as the previously set forth claim rejections under 35 USC § 112 have been overcome by amendments. However, note that new claim rejections under 35 USC § 112 have been necessitated by certain amendments.
2. Amended claims 1-9 as well as claim 10 have been examined.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. That is, it is not clear from the claims how the spaced apart walls are situated relative to the intermediate walls,

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or in what orientation the bent, perforated wall segments are disposed between those walls. Note that the term “and/or” (claims 7 and 8) suggests that the spaced apart walls and intermediate walls are interchangeable in structure and function. The claims do not set forth the manner in which the perforated wall segments are bent – note that the bent perforated wall segments are claimed as being substantially U-shaped *and* bent, suggesting that the U-shape does not completely encompass the bent nature of the segments. They also do not particularly claim how and in what manner the spacer elements determine the spacing between the two sides of a double wall (claim 8). The term “the suction pockets” is not provided with adequate antecedent basis in the claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kielbowicz (5,759,398), and further in view of Regulatory Guide 1.82.

Kielbowicz discloses a suction sieve or screen for use in the emergency cooling system of a nuclear power plant made up of modular cassette elements. Each cassette unit has perforated, spaced apart wall sections, along with wall segments, form sieve pockets defined by lateral walls and discharge, or outflow gaps. The side of the elements having outflow gaps is the outflow side, while the other side is necessarily the suction side (see Abstract). Wall segments (13) are bent in

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U-shaped configurations and formed of perforated sheet metal (col. 2, lines 41-42). Wall sections 11 and 12 are spaced apart by spacers (21, 22). Although Kielbowicz defines a single cassette as having only two end wall sections (11 and 12), one may interpret an aspect of the disclosed invention as a compound cassette unit comprised of a plurality of cassette elements, and therefore a plurality of end wall section pairs. These compound cassette units have double walls formed by abutting end wall sections, the wall sections not on the periphery of the compound cassette unit being intermediate walls. The compound cassette units may also be placed in a row to form a further compounded and more extensive unit. As best seen in Fig. 3, the cassettes or compound cassettes are clamped against each other by connection elements (10). The foregoing discussion demonstrates that Kielbowicz teaches every limitation of claims 1-4 and 6-9 except that the cassette units are rectangular

While the screen disclosed by Kielbowicz has an annular body, the teachings provided by Kielbowicz regarding the filtering configuration may clearly be applied to the motivations related to flat or angular sump screens as disclosed in Regulatory Guide 1.82. Included in the Features Needed to Minimize the Potential Loss of NPSH (net positive suction head) are:

1.1.1.6) that sump screens should be capable of withstanding loads imposed by accumulation of debris and 1.1.1.11) that the sump screen design should be chosen to avoid loss of NPSH cause by debris blockage. These are similar to the aims that motivate the design features of the filter element disclosed by Kielbowicz, and a skilled artisan would be able to utilize those teachings in order to design a sump screen in accordance with the regulatory guide and that reads upon the currently claimed invention. That is, it would have been obvious to one skilled in the art at the time of invention to modify the screen taught by Kielbowicz to have a rectangular rather than

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circular cross section, i.e., to reduce the curvature of the sieve pocket structure as pictured in Fig. 4, in order to provide a screen endowed with the advantageous sieve pocket structure in the conventional sump pit structure on page A-12 of Regulatory Guide 1.82. It would require only conventional metalworking skills to accomplish this modification, and doing so would be no more than the advantageous application of expedients known in the art.

The depth of the sieve pockets disclosed by Kielbowicz is not given a specific value, and thus there is no explicit teaching with regard to claims 5 and 10. However, Kielbowicz states that the favorable ratio between the volume of the sieve and its effective sieve surface is due to the fact that water can flow through outwardly opening sieve pockets, each of which forms a partial sieving volume. In other words, the more convoluted the sieve structure – i.e., the deeper the pockets – the more accessible area there is for water to escape, the lower the flow rate of the water through any given aperture and the more constant the pressure regardless of debris accumulation (col. 3, lines 29-43). The claimed pocket depths are therefore result-effective variables that may be optimized within prior art conditions or through routine experimentations. See MPEP § 2144.05(II)(A). It would have been obvious to one skilled in the art at the time of invention to develop pockets having depths greater than 0.2 m for the screen taught by Kielbowicz in order to prevent undesirable pressure changes, a motivation disclosed by Kielbowicz as stated above.

Conclusion

5. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexandra Awai whose telephone number is (571) 272-3079. The examiner can normally be reached on 9:30-6:00 Monday-Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AA

April 30, 2006


JACK KEITT
SUPERVISORY PATENT EXAMINER